

RESTRUCTURED SYLLABUS :INORGANIC CHEMISTRY PRACTICAL

CEMA

SEM I : NIL

SEM II : INORGANIC QUALITATIVE

(50 Marks)

Analysis of an unknown inorganic mixture (solid) containing three radicals

Basic Radicals : Pb^{2+} , Cu^{2+} , Bi^{3+} , Sb^{3+} , $\text{Sn}^{2+/4+}$, $\text{Fe}^{2+/3+}$, Al^{3+} , Co^{2+} , Ni^{2+} , Zn^{2+} , Mn^{2+} , Ba^{2+} , Ca^{2+} , Sr^{2+} , Mg^{2+} , K^+ , NH_4^+

Acid Radicals : F^- , Cl^- , Br^- , I^- , S^{2-} , $\text{S}_2\text{O}_3^{2-}$, SO_4^{2-} , NO_2^- , NO_3^- , PO_4^{3-} , BO_2^- , H_3BO_3 , BrO_3^- , IO_3^- , CO_3^{2-}

- CO_3^{2-} to be detected only for probable composition.

Insoluble : Al_2O_3 , SnO_2 , Fe_2O_3 , CaF_2 , BaSO_4 , CaSO_4 , SrSO_4 , PbSO_4

SEM III : NIL

SEM IV : NIL

SEM V :INORGANIC QUANTITATIVE(75 Marks)

- Estimation of Iron and Chromium in a mixture by Dichromatometry.
- Estimation of Iron and Manganese in a mixture by Dichromatometry/Permanganometry.
- Estimation of Iron and Calcium in a mixture by Permanganometry.
- Estimation of Iron (Dichromatometry) and Copper (Iodometry) in a mixture.
- Estimation of Copper in Brass by Iodometry.
- Estimation of Calcium and Magnesium in a mixture by Complexometry.
- Synthesis of $[\text{Ni}(\text{DMG})_2]$ and estimation of Nickel by Gravimetry.
- Synthesis and characterization of Copper Biguanide Sulphate.

ANALYTICAL

(25 Marks)

- Estimation of Total Hardness of Water by Complexometry.
- Determination of available oxygen in Pyrolusite.
- Estimation of Glucose using Fehling's Solution.
- Estimation of Vitamin C (reduced).
- Estimation of Amino Acid by Formol Titration.
- Estimation of Aniline by Bromination Method.

CEMG

SEM I : NIL

SEM II : NIL

SEM III : INORGANIC QUANTITATIVE

(30 Marks)

- Titrimetric Standardisation of KMnO_4 solution against standard Oxalic Acid solution.
- Titrimetric Standardisation of Mohr Salt solution against standard $\text{K}_2\text{Cr}_2\text{O}_7$ solution.
- Titrimetric Standardisation of Mohr Salt solution against standard KMnO_4 solution.
- Titrimetric Standardisation of Thio solution against standard $\text{K}_2\text{Cr}_2\text{O}_7$ solution.
- Estimation of Fe (II) and Fe (III) in a mixture by Dichromatometry.
- Estimation of Magnesium by Complexometry.